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(54) Deep native oxide confined ridge waveguide semiconductor lasers

(57) A ridge waveguide semiconductor laser structure (100) fabricated by etching and wet oxidation. The upper cladding layer (112) is partially etched forming a ridge and a native oxide layer is wet oxidized from the remaining upper cladding layer (112) and the active region (106,108,110) outside the ridge. The deep native oxide layer (206) provides strong optical confinement to the ridge waveguide (208). Alternately, the active region (106,108,110) can be narrower than the ridge waveguide (208) in the laser structure. The ridge waveguide semiconductor laser structures with native oxide layers (206) can also be curved geometry lasers such as ring lasers (400).

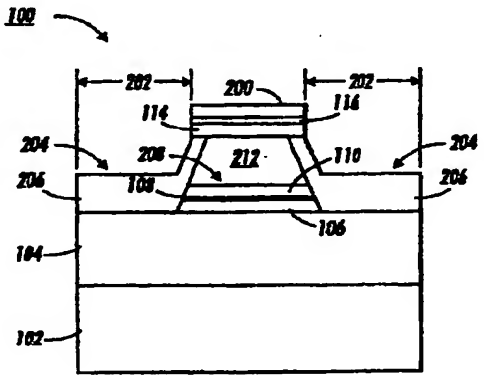

FIG. 2

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EUROPEAN SEARCH REPORT

Application Number
EP 98 11 5466

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A	KRAMES M R ET AL: "DEEP-OXIDE CURVED RESONATOR FOR LOW-THRESHOLD ALGAAS-GAAS QUANTUM WELL HETEROSTRUCTURE RING LASERS" APPLIED PHYSICS LETTERS, vol. 67, no. 1, 3 July 1995, pages 73-75, XP000519032 * the whole document *	1-6	
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
MUNICH	3 February 1999	Gnugesser, H

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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